

## appendix b

# GLOSSARY

**Abundance:** The amount — by count, weight, or other measure — of a given group in a given area. Generally, abundance refers to the number of individuals of a species (genus, family) within an area of survey.

**Aggregate Weight:** Total biomass of group of individual species.

**Alga (Plural: Algae):** Very simple, often one celled, plants that are either attached or unattached in aquatic (marine or freshwater) environments; can be used as a term to cover simple seaweed.

**Alga Mats:** Floating clumps of algae.

**Ambient Water Quality:** The conditions of a water body (or wetland) generally taken as a whole (e.g. the average pH of Pleasant Bay in 1999), contrasted with site/source specific or episodic measurements.

**Archival Action:** Stored away for future reference or further research.

**Auger Sample:** A field sample taken within the bottom substrate of a marsh using an auger.

**Bailer:** A device used to gather water from a groundwater well. A bailer is lowered into the well, a sample of groundwater is forced into the container, and the bailer is removed from the well with the sample.

**Barrier Beach:** Narrow, low-lying strips of shifting beach and dunes that are roughly parallel to the coastline, and are separated from the mainland by a body of water or wetland.

**Bioassay:** A sample of plant or animal tissue is analyzed for the concentration of a particular chemical or toxic substance.

**Biological Community:** See Community.

**Biological Impairment:** Diminished quality, strength, or value of the condition of an individual, group, habitat, and/or function of living organisms.

**Biological Integrity:** Ability of an ecosystem to support and maintain a balanced, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of pristine habitats within a region.

**Biomagnification:** The process by which chemicals accumulate in the body tissue of organisms and increase in concentration as the chemical passes through successive trophic levels.

**Catch Efficiency:** The success of collecting species in an area.

**Catch Per Unit Effort (CPUE):** Standardized catch (number or weight of creatures) for a sample.

**Catch Stability:** The success of collecting species at different locations or times.

**Community:** A group of species inhabiting a given area, where organisms interact and influence one another's distribution, abundance, and evolution.

**Composite Sample:** A series of samples taken over a given period of time and integrated or combined by sample station or other variable (e.g. flow rate).

**Debris:** Unwanted material (either organic such as vegetation and peat, or mineral such as mud and sand) collected in a sample.

**Deposit Feeder:** Organism that scavenges food from materials at rest on substrate surfaces.

**Detritivore:** Organism that ingests either coarse or fine detritus pieces.

**Detritus:** Dead and decomposing plant and animal material.

**Diversity:** Variety or heterogeneity in taxonomic groups.

**D-Net Sample:** A field sample taken within the water column and substrate surface using a D-Net (a sampling net having an opening in the shape of a “D”).

**Environmental Stressor:** Any material or process (physical, chemical, or biological) that can adversely affect a salt marsh, includes both natural and human disturbances.

**Estuary:** Region of interaction between rivers and near-shore ocean waters, where tidal action and river flow mix fresh and salt water. Such areas include bays, mouths of rivers, salt marshes, and lagoons. These brackish water ecosystems shelter and feed marine life, birds, and wildlife.

**Eutrophication:** The process by which a body of water becomes enriched with nutrients, particularly nitrogen and phosphorus, which usually changes ecosystem properties and functions.

**Evaluation Area:** A comparable and representative portion of a reference or study salt marsh.

**Evaluation Tool:** Any evaluation method (water quality analysis, biomonitoring method, remote sensing, etc.) used to evaluate the condition of a salt marsh.

**Family:** See Taxonomic Group.

**Feeding Group:** A related group of organisms that acquire food by the same means.

**Filter Feeders:** Aquatic organisms that obtain food by removing solid (particulate) matter from water.

**Fin Rot:** Abnormal area and/or injury to fleshy, spine, and/or ray appendage of bony fishes.

**Food Web:** The linkage of organisms based on their feeding relationships sources, or trophic interaction.

**Generalist:** A species (genus, family) that is able to exist or thrive in a variety of habitats or conditions.

**GPS (Global Positioning System):** Technology that utilizes communication between orbiting satellites and ground receivers to pinpoint exact locations on the earth.

**Grazer:** An animal that eats living plant matter.

**Groundwater:** The water found beneath the Earth surface, frequently used in reference to aquifers and drinking water wells.

**Habitat:** The sum of the physical, chemical, and biological environment occupied by individuals or a particular species, population, or community.

**Habitat Assessment:** A method for evaluating the quality of the habitat of a particular group of organisms, e.g. invertebrates.

**Habitat Assessment Score:** A numerical score, expressed as a percentage, of overall habitat condition for a particular group of organisms.

**Herbivores:** An animal that eats living plant matter.

**High Marsh:** The area of a New England salt marsh that is flooded by higher than average tides and dominated by the grasses *Spartina patens* and *Distichlis spicata*. The high marsh lies between the low marsh and the marsh's upland border.

**Human Disturbance:** Activity or state caused, directly or indirectly, by humans that intrudes, interrupts, or perturbs the natural state of ecological relationship and function.

**Hydrology:** The [study of] water of the earth, its occurrences, distribution, and circulation with particular emphasis on the chemistry and movement of water.

**Index (Plural: Indices):** A value combining several metrics (or scores) into a single measure, integrating the information from the original measurements.

**Indicator:** An attribute or measure that is strongly suggestive of the condition or direction of an ecological system.

**Introduced Species:** See Non-Indigenous.

**Invasive Species:** Non-indigenous organisms that may threaten the diversity or abundance of native species or natural ecological relationships and functions by spreading and outcompeting native species.

**Invertebrate:** Animals without internal skeletons and backbones. Marine invertebrates live in ocean-derived salt water, freshwater invertebrates live in freshwater for at least part of their life cycle, and terrestrial invertebrates are associated with uplands and fringes of aquatic habitats.

**Invertebrate Community Index:** A summary of all the metrics and indices that have been selected to evaluate the overall condition of the invertebrate community.

**Land Use Analysis:** An examination of landscape characteristics and indicators with an emphasis on human development patterns.

**Low Marsh:** The seaward area of a salt marsh, generally flooded daily by the tides, and dominated by the tall form of *Spartina alterniflora*.

**Macroinvertebrate:** An animal without an internal backbone that is large enough to be seen by the naked eye.

**Marsh Border:** The zone of a salt marsh that is only flooded during extreme high tides or coastal storms, and sustains a variety of upland and wetland plants that are not well adapted to periodic flooding or salt stress.

**Metric:** Particular attribute of a biological community or taxonomic group that is expected to change in response environmental stressors and human disturbance.

**Microtox:** The means by which the toxicity of a chemical or other material is determined in microorganisms.

**Mitigation:** An action taken to moderate or alleviate environmental damage or degradation by improving, restoring, or replacing the affected natural resource (Adverb: Mitigative).

**Mixed Feeding Group:** Taxonomic groups that have more than one feeding group (e.g. deposit feeders and suspension feeders).

**Monitoring:** Periodic or continuous survey or sampling to determine the status or condition of various media and systems, including water bodies, groups of plants and animals, or ecological systems.

**Morphology:** The [study of] form and structure of an organism.

**Multiple Metric Index:** A means to analyze the health of an ecosystem by combining several measured traits (usually of biological communities or habitat characteristics) into a single comprehensive score that can be compared to other locations or times.

**Mutation:** Change in the genotype of an organism occurring at the gene, chromosome, or genome level; frequently demonstrating evidence of change in phenotype (outer appearance).

**Nekton:** Any organisms that actively swim in the water column.

**Non-Indigenous:** A species transported intentionally or accidentally from another region, allowing it to occur in areas beyond its normal range. Synonym: Introduced Species.

**Opportunistic:** A species (genus, family) that is able to compete advantageously during periods of stress, both natural and human-induced, by colonizing new areas or expanding existing habitat.

**Panne:** A depression on the surface of a salt marsh. This term is used variably in the literature and field to include both vegetated and un-vegetated, as well as permanently or temporarily flooded depressions.

**Parameter:** A measurable property whose value determines characteristics of an ecosystem (e.g. salinity is a measurable attribute of estuarine waters).

**Parasite:** An organism that derives benefit from another organism (host) without providing benefit to the host.

**Phytoplankton:** Minute, free-floating aquatic photosynthetic plankton (mainly unicellular algae).

**Plot Sample:** A field sample technique that gathers information from an area enclosed within the dimensions set by a frame of a standard size.

**Population:** A group of interbreeding organisms occupying a particular space or area; all of the organisms that constitute a specific group or occur in a specified habitat.

**Pore Water:** The shallow groundwater occupying the interstitial areas (or pores) of marsh substrate.

**Predator:** An organism that hunts and consumes other animals.

**Preservative:** A chemical solution that preserves the condition of dead organisms.

**Quadrat Sample:** See Plot Sample.

**Qualitative:** Involving distinctions based on standards, traits, or value.

**Quantitative:** Expressible as, or relating to, a measurable value.

**Reference Marsh [Site]:** A marsh that exhibits a typical “minimally disturbed” condition, or maximum functional capacity, and represents other marshes in a specific region sharing the same water regime, topographic setting, and climate zone.

**Refractometer:** A device used to measure salinity (or the concentrations of certain dissolved minerals). Prisms send light through a very small water sample and the bend of the light is consistent with the concentration (amount) of salts.

**Rhizomes:** A horizontal, usually underground stem that generally sprouts roots and shoots from its nodes.

**Salinity Regime:** The measured, normal fluctuations in salinity over tidal and seasonal cycles.

**Salt Marsh:** Low-lying, vegetated coastal wetlands, influenced by the tidal estuary or marine waters.

**Sample Station:** A specific location within the wetland evaluation area of a salt marsh site selected to conduct field sampling.

**Sensitive:** Organisms that have a low tolerance of pollution and disturbance, whose numbers tend to decrease with impact.

**Skin Lesions:** Abnormal area on outer layer of body; normally present due to injury or disease.

**Spawning:** The release of gametes or eggs into the water.

**Specialist:** An organism with very specific requirements for some aspects of its ecology or phases of its life cycle.

**Species:** See Taxonomic Group.

**Stressor:** See Environmental Stressor.

**Sub-Sample:** A small but representative portion of a sample, usually taken when a very large number of organisms are in the sample and it is not practical to identify and count each individual.

**Substrate:** The various materials that collectively make up the exposed or submerged surfaces of wetlands and aquatic environments, which may include sand, silt, peat, algae, logs, wood, debris, bank surface, sediments, leaf packs, mud, rock, and sometimes solid waste such as tires.

**Suspension Feeders:** Organism that filters fine organic particles from the water column for food.

**Taxon (Plural: Taxa):** The organisms comprising a particular classification group, e.g. a particular phylum, class, order, family, genus, or species.

**Taxonomic Group:** Phylum, class, order, family, genus, species, and related sub-divisions of these groups.

**Taxonomist:** An expert in the skills of systematic classification of organisms.

**Taxonomy:** The study of the relationships and classification of organisms.

**Tide Restriction:** A structure or landform that restricts natural tidal flow, such as a culvert, bridge, dam, or causeway.

**Tolerant:** Organisms that have a high tolerance of pollution or disturbance, whose numbers tend to increase with impact.

**Toxicity Test:** The means by which the toxicity of a chemical or other test material is determined.

**Transect:** A method for environmental sample or survey using a straight line to delineate the area of analysis.

**Variable:** See Parameter.

**Wetland:** Areas where water covers the soil, or is present either at or near the surface of the soil for at least part of the growing season.

**Wetland Evaluation Area:** See Evaluation Area.

**Woody Debris:** Dead logs, limbs, sticks, etc.

**Zonation:** The observed occurrence of New England salt marsh plants to organize into apparently discrete areas, due to flooding, salinity, and other forcing factors. A classic zonation pattern is (progressing across a marsh from estuarine water to the upland) low marsh, high marsh, and border or fringing marsh. In many marshes, the classic pattern does not hold, and the plant communities would be better described as a patchwork or mosaic.